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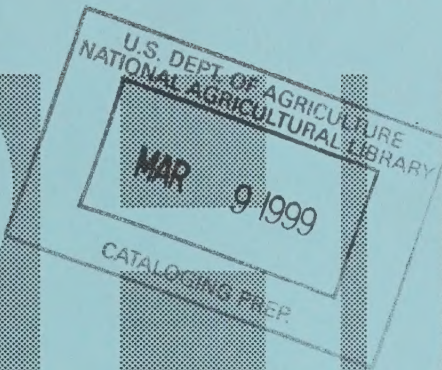
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# INFO SHEET

## Veterinary Services



United States  
Department of  
Agriculture

Animal and  
Plant Health  
Inspection  
Service

January 1999

## Equine Management Practices

Equine owners together with their veterinarians try to establish management practices that optimized the performance and welfare of their horses. Whether the goal is a blue ribbon at the show, a first place finish at a race track, or a healthy foal, several basic areas of management can be vital to an equine owner's success.

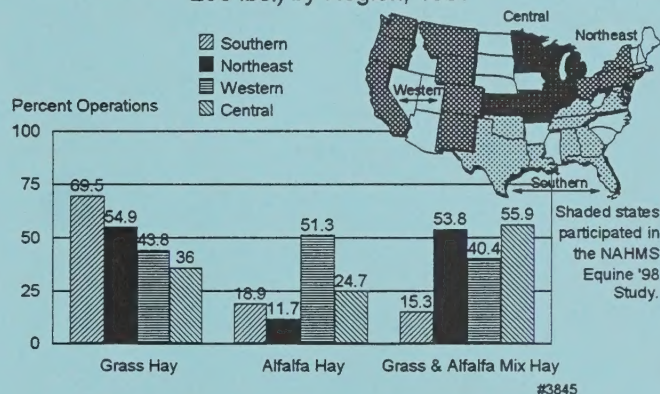
The USDA's National Animal Health Monitoring System (NAHMS) collected data on equine health and management practices via personal interview from a representative sample of equine operations in 28 states.<sup>1</sup> These operations represented about three-fourths of the equine population and three-fourths of operations with equids in the U.S. For this study, equids were defined as horses, miniature horses, ponies, mules, donkeys, and burros. Overall 2,904 operations with one or more equids participated in the Equine '98 Study's interviews from March 16 through April 10, 1998. More detailed information on the study and the sampling methodology is available in NAHMS Equine '98 tabular summary reports.

In 1997, 86.6 percent of operations fed dried forage/hay from small bales (weighing less than 200 lbs.) Alfalfa from small bales was fed by the largest percentage (51.3 percent) of operations in the Western region and was fed infrequently in the Southern region, either alone (18.9 percent) or mixed with grass (15.3 percent, Figure 1). The majority (66.8 percent) of operations fed dried forage/hay to their equids at least twice a day in 1997.

Overall, with respect to grain/concentrate feeding, the largest percentage (57.2 percent) of operations fed unpelleted sweet feed, while unpelleted grain was the second most commonly fed grain source (42.9 percent of operations, Figure 2). The largest percentage of operations that fed no grain/concentrate to equids was in the Western region (11.9 percent), and the smallest percentage was in the Southern region (2.2 percent).

A large percentage (98.2 percent) of operations typically fed dried forage to equids in the winter. A majority of operations also included grain/concentrate (87.4 percent) in their winter feeding program. Fewer operations in the

Figure 1  
Percent of Operations that Fed Grass, Alfalfa, and/or Grass/Alfalfa Mix Hay in Small Bales (Less than 200 lbs.) by Region, 1997



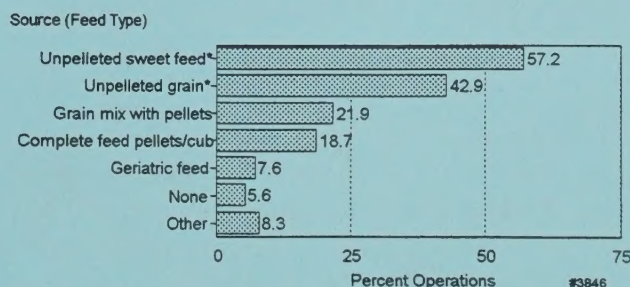
Western region (74.3 percent) than in other regions included grain/concentrate in the diet during the winter.

Over one-third (38.2 percent) of operations fed a vitamin-mineral supplement/premix, and 20.2 percent fed a protein-vitamin-mineral supplement premix to equids in 1997.

More than 60 percent of operations in the Northeast, Western, and Central regions, and only 38.9 percent of operations in the Southern region, used well water as the primary source of water for resident equids. Surface water was used more frequently for resident equids in the Southern region (32.9 percent) than in other regions.

The majority of operations had acreage available for equid turnout. Approximately one-half (49.0 percent) of operations subdivided the available acreage. The most

Figure 2  
Percent of Operations that Fed the Following Grain/Concentrate Sources (Feed Type), 1997



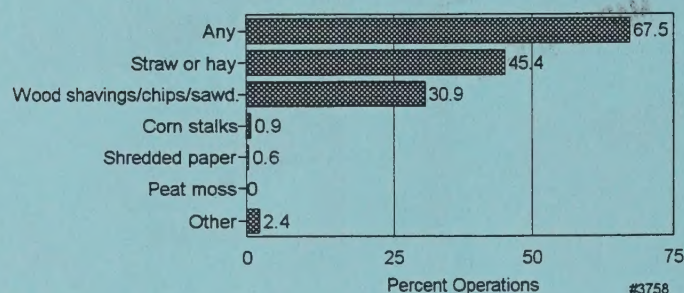
\*Unpelleted sweet feed (e.g., grain mixed with molasses)  
Unpelleted grain (e.g., whole or rolled oats, corn)

<sup>1</sup> Alabama, California, Colorado, Florida, Georgia, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Missouri, Montana, New Jersey, New Mexico, New York, Ohio, Oklahoma, Oregon, Pennsylvania, Tennessee, Texas, Virginia, Washington, Wisconsin, and Wyoming.



Figure 3

### Percent of Operations by Bedding Type(s) Used for Equids, 1997



common reason for subdividing turnout acres was to prevent overgrazing (68.4 percent of operations) followed by the need to segregate different groups of equids (36.5 percent). On average, the maximum number of equids per acre at one time was 0.8 with slightly higher maximum stocking density on operations that did subdivide available acreage, regardless of geographic region. This information refers to turnout acreage, not necessarily pasture intended to provide nutrition, which might explain the regional similarity for maximum stocking density in turnout areas despite regional differences in pasture quality. Over 27 percent of operations that pastured equids for 3 or more months did not rely on the pasture to provide at least 90 percent of the roughage in the horses' diet.

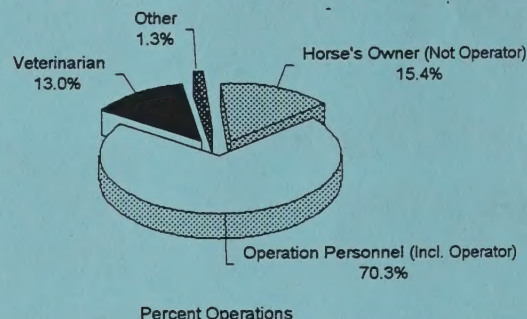
Two thirds (67.5 percent) of operations used bedding for equids in 1997 (Figure 3). The most commonly used bedding for equids was straw or hay (45.4 percent of operations) followed by wood shavings (30.9 percent). Corn stalks, shredded paper, and peat moss were infrequently used as equine bedding. More than one bedding type may have been used on any operation.

Approximately one-third (34.5 percent) of operations that had stalls cleaned them once per day or more often, while approximately one half (50.2 percent) cleaned them weekly or less often. Perhaps the frequency of stall cleaning was related to how much time equids occupied the stalls. On some operations, equids may only be in stalls a few hours per day or only during inclement weather. If equids reside in the stall for the majority of the day, every day, infrequent removal of manure and soiled bedding may result in greater health problems, such as respiratory problems in poorly ventilated stalls.

Overall, at least one resident equid on 60.5 percent of operations received some kind of vaccine in 1997. Thus, nearly 40 percent of operations did not vaccinate at least one equid in 1997. Unvaccinated animals could be more susceptible to tetanus, respiratory disease and sleeping sickness, all of which can result in substantial economic loss. The percentage of operations that administered some kind of vaccine to at least one resident equid increased with increasing size of the operation. Less than one-half (44.9 percent) of operations with one to two equids vaccinated any equids, while 89.8 percent of operations with 20 or more equids vaccinated at least one resident equid.

Figure 4

### Percent Operations\* by Person who Gave the Majority of Dewormers to Equids, 1997



\*For operations where any dewormers were given to resident equids during 1997. #3847

Veterinarians were most frequently the primary source for vaccines and also administered the majority of vaccines to equids on over half of the operations where vaccines were given (67.7 and 52.5 percent, respectively). Operation personnel gave the majority of the vaccines on about one-third (36.9 percent) of the operations.

Overall, a dewormer was given to at least one resident equid on 86.7 percent of operations. This percentage was similar across regions of the country. Operation personnel administered the majority of dewormers to resident equids on 70.3 percent of operations that dewormed, while veterinarians administered the majority of dewormers on only 13.0 percent of operations that dewormed (Figure 4). Over 90 percent of operations with three or more equids gave dewormers to resident equids in 1997. A lower percentage (78.9 percent) of operations with one to two equids gave dewormers. It appears that more operations, regardless of their size, gave dewormers to equids than gave vaccines. These findings may be reflective of the relative ease of administration of dewormers versus vaccinations by operation personnel, or perhaps a greater concern about parasite control.

Less than one-half (44.4 percent) of operations had a dental care provider for equids in 1997. Overall, a veterinarian was the number one dental care provider. A non-veterinarian equine dentist was most likely to be the number one dental care provider on operations where the equids were primarily used for racing. Larger operations were more likely to have a dental care provider for resident equids; 86.3 percent of operations with 20 or more equids compared to 29.3 percent of operations with one or two equids had a dental care provider in 1997. As the size of the operation increased, the percentage of operations increased where a non-veterinarian equine dentist provided primary dental care. Operations where the primary use of equids was for racing, breeding, and showing/competition were most likely to have had a dental care provider (81.6, 25.2, and 72.9 percent, respectively) than those of other primary uses.

For more information on the Equine '98 Study, contact: Centers for Epidemiology and Animal Health; USDA:APHIS:VS, attn. NAHMS; 555 South Howes; Fort Collins, CO 80521; Telephone: (970) 490-8000; Internet: NAHMSinfo@usda.gov; World Wide Web: <http://www.aphis.usda.gov/vs/ceah/cahm>